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*J. W. Francis M.D. with
The Author's* **REMARKS** *and*

ON THE

MEDICAL PROPERTIES

OF

THE STRAMONIUM.

BEING A SERIES OF

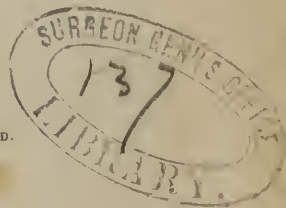
FACTS AND OBSERVATIONS,

**MADE FOR THE PURPOSE OF ASCERTAINING THE QUALITIES
AND EFFECTS OF THAT VALUABLE PLANT.**

BY W. M. IRELAND,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN LONDON; CORRESPONDING MEMBER OF THE ROYAL INSTITUTION, &c. &c.
AND LATE SENIOR SURGEON TO H. B. MAJESTY'S 60TH OR ROYAL
AMERICAN REGIMENT OF FOOT.

"Principiis obsta, sero Medecina Paratur
Cum mala per longas convalere Moras."—OVID.



NEW-YORK :

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1817.

TO
The Learned Body
Composing the Faculty of Physic
IN THE CITY OF NEW-YORK;
THESE
OBSERVATIONS
ON
THE MEDICAL PROPERTIES
OF THE
STRAMONIUM,
ARE
MOST RESPECTFULLY DEDICATED,
BY THEIR
OBEDIENT, HUMBLE SERVANT,
THE AUTHOR.

1877

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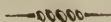
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PREFACE.



THE richness and independence of a country, depends in a great degree, on the state of her knowledge of the fine arts: but interior wealth and prosperity, on her knowledge and cultivation of the agricultural and botanical branches of science.

Botany has been the study of the learned in all the polished nations on the globe; and according to the state in which that branch of science flourished, so could be calculated the wealth and prosperity of the nation, best acquainted with the knowledge and properties of the vegetable productions of the earth.

If we examine the state of medical science of all ages, we find, that its eminence has kept pace only with the state of their knowledge of the virtues and principles of the vegetable kingdom; and the more enterprising and attentive are the Professors of Medicine to this

branch of science, the more we see diseases vanquished and health restored.

We are indebted to the exertions and application of certain individuals, for the knowledge we possess of many of the most valuable drugs in our catalogue of medicine: and were the practitioners of the present day to pay more attention to that very necessary part of their profession, there is every reason to believe, that the formidable list of unmanageable diseases, which at present exist, would diminish in the same ratio with our acquaintance of the means of relief, which nature seems to have provided, veiled only by our ignorance of nature's laws.

It has been too often the case, that some of our most valuable compositions have been held in secrecy by the contracted and selfish dispositions of quacks and empirics; but as the dawn of chymistry began to shed its genial light, liberal-minded and philanthropic men became to be conspicuous. Dover's Powder, James's Powder, Hoffman's Anodyne, Huxham's Tincture of Bark, Steers's Opodeldoc,* &c. &c. were long held as

* Although Steers applied this term to his neat composition, the Camphorated Liniment, it was invented by Paracelsus, and applied by him, as a plaster, which was used for the cure of external injuries of all descriptions.

secret nostrums, which the knowledge of chymistry, of the moderns, have brought to light.

I have heard Sir Joseph Banks observe, that “the traveller who brought home only one plant, with the particulars of its growth and medicinal virtues, did more for his country, than he who brought home a thousand, unaccompanied with these particulars.”

The plant which the following pages are occupied in describing, claims the particular notice of the inhabitants of the soil in which it is indigenous; for wherever a substance is produced spontaneously, there it is to be found in its greatest perfection.

When a medicine is extolled beyond its real virtues, and positive effects, it sinks as far below its actual value, as it was raised above its real worth; and this is the reason why many of our valuable compositions have dwindled away into disrepute.

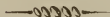
Should the few facts and observations which I have collected together, excite the attention of the public, so as to cause the virtues of this valuable plant to be more generally known; so that it may be the means of relieving the distress, or easing the pain, of one single individual, I shall not think my time or endeavours thrown

away; but in addition to the consciousness of meaning well, I shall have the happiness of knowing that I have done good.

MEDICAL VIRTUES

OF

THE STRAMONIUM.



DATURA STRAMONIUM,* Class V. Pentandria. Order I. Monogenia, the common Thorn-apple, or “Jameston-weed; most commonly termed by the vulgar ‘Stink-weed.’ This term, most likely, originated from *Solanum fetidum*,” (a name once given to this plant in the Edinburgh Pharmacopœia) Solor, to comfort, or ease; because it gives ease from its antalgic, soothing, and analeptic qualities; and *fetidum*, from *fetidus*; stinking.

It is an indigenous herbaceous plant, with a thick upright branched stalk, which is hollow; large sinnated indented leaves, broad towards the base, pointed at the extremity, toothed, varying in size; flowers whitish, standing upon a long tube, first from the forks of the

* *Stramonium*, *i. e.* from *Stramen*, Straw: So called from its fibrous roots.

branches, and afterwards near the extremities, succeeded by oval fleshy prickly capsules, termed “thorn-apple;” which open at the convex end in four divisions, and disclose numerous blackish kidney-shaped seeds. The cone is divided in the centre, by a thin filament. It grows from two to five feet in height, according to the soil in which it is reared. It is an annual plant, and flowers in July and August. The smell is disagreeable, and the taste nauseous. An extract made of the expressed juice of the leaves, is acrid and saline to the taste, and yields crystals of nitre, on standing. Every part of the plant is a strong narcotic poison, producing vertigo, torpor, convulsions, and death: but the seeds produce those symptoms in a more aggravated degree. Emetics and cathartics have been recommended by some, as a remedy in those dangerous and alarming symptoms; but the best antidote is vinegar.

Professor Barton, of Pennsylvania, mentions the cases of two British soldiers, who ate of it, by mistaking it for the *Chenopodium Album*, of Linnæus: one became furious, and ran about like a madman; and the other died, with the symptoms of genuine tetanus. Dr. Woodville relates the case of a man, “aged sixty-nine, labouring under a calculous complaint, who, by mistake, boiled the capsules in milk, and in consequence of drinking this decoction, was affected with vertigo, dryness of the fauces, anxiety, followed with the loss of voice and sense; the pulse became small and quick, the extremities became cold, and the limbs paralytic; the features distorted, accompanied with violent delirium, continual watchfulness, and a total suppression of all the evacuations: but although all these symptoms took place, he was, in a few hours, restored to his former health.”

The following advertisement appeared some time ago in the Bath paper, with the respectable signature of Dr. Haygarth;

“Gardeners are particularly desired to take care, never to throw poisonous plants out of gardens into the streets, lanes, or even fields, to which people can have access. Poor children, for diversion, curiosity, or hunger, are prompted to eat all kinds of vegetables, which come in their way, especially seeds, fruits, or roots. This caution does not proceed from fanciful speculation, but from actual mischief, produced by the cause here specified. A physician has lately seen several children poisoned with the roots of Aconite, or Monkshood, thrown into a field, near the city of Chester; and with the seeds of the Stramonium, or Thorn-apple, thrown into the street. The former were seized with very violent convulsions and vomiting; an alarming pain in the head, stomach, and bowels: the latter with blindness, and a kind of madness; biting, scratching, shrieking, laughing, and crying, in a frightful manner. Many of them dangerously affected, and escaped very narrowly with life. These, and all other poisonous plants, taken out of gardens, should be carefully buried or burned.”

This plant has long been known as a powerful narcotic poison. It was known even among the Greeks; and hence it seems to have been received by Linnæus into the *Materia Medica*. The Stramonium, in its recent state, has a bitterish taste, and a smell somewhat resembling that of poppies, or what is called by Bergius, Narcotic; especially if the leaves be rubbed in the hand. By holding the plant to the nose for some time, or sleep-

ing on a bed made of the leaves, giddiness in the head, with stupor, &c. are said to be produced: but this I never have witnessed.

It is rather surprising, after so much has been said of the virtues of this plant, by so many learned men of the profession, that it should be so much neglected among the practitioners of the present day. Adhelius tells us, "that of fourteen patients suffering under epileptic, and convulsive affections, to whom he gave the Stramonium, in the hospital at Stockholm, eight were completely cured, five were relieved, and only one received no benefit." Bergius also relates three cases of its success: one of mania, and two of convulsions. Reef, a Swedish physician, mentions its beneficial effects in two cases of mania. Doctor Aikin, in speaking of the extract, says, "This preparation is given in doses of from one to five grains, twice or thrice a day, and is said to be a very powerful remedy in various convulsive and spasmodic disorders, epilepsy, and mania. The accounts of other practitioners have confirmed that of the first introducer." Wedenberg cured four girls, affected with convulsive complaints, by the internal use of the Stramonium. Baron Storck, of Vienna, who had considerable experience in the internal use of the Stramonium, and who seems to be the first that tried its effects in mania, convulsive, epileptic, and melancholic diseases, with the most beneficial and happy effects. Hufeland gave it in the form of tincture, prepared with two ounces of the seed, in four ounces of wine, and one of diluted alcohol, in diseases of the mind. Doctor Barton, professor of botany in this country, mentions it with the highest respect, and considers it to be a medicine of great efficacy. Doc-

tor Barton gave it in powder, beginning with doses of a few grains, and increasing them in a few days, to fifteen or twenty. In one case, in which it was given to the extent of thirty grains, it dilated the pupil of one eye, and produced paralysis of the eyelids, which was removed by the application of a blister. Plenck seems to be the only practitioner who has taken much notice of its external effects: he says, "that if the bruised leaves be applied to hard, indurated, and inflamed tumours, they will soon disappear. It also," says he, "softens and disperses tumours in the breasts of nurses, from indurated milk," &c. An abridged account, with some of the medical properties, and several instances of its efficacy, taken from a treatise, printed at Upsal, by Doctor Wendenberg, is to be seen in the Medical Commentary, vol. iii. p. 18. Many well-informed Swedish and German physicians have mentioned the beneficial effects of this valuable plant; but I should be taking up the reader's time to no purpose, were I to trace the subject any further. Had the practitioners of America followed the example of Doctor Barton, the virtues of this valuable plant would not have remained so long unknown to the medical world in general.

In England, indeed, where physicians observe the rule, "*Soltem non nocere*," more strictly than in any other country, the Stramonium has been very little employed as a medicine: in every other country, however, they have been guided more by the axiom, "that which is incapable of doing much harm, is equally unable to do much good:" this remark was very fully exemplified by the practice of Baron Storck. We see that from the time of Gesner to that of a modern date, that even the *Nux Vomica*, was recommended by a succession of

authors of different countries, as an antidote to the plague, as a febrifuge, as a vermifuge, as a remedy in mania, hypochondriacis, hysteria, rheumatismus, gout, and canine madness. Nor was that valuable plant, the *Conium Maculatum*, of Linnæus, or Hemlock, much used as a medicine, till noticed by that able physician Baron Storck. The great philosopher, Lord Bacon, used to say, that whenever the Medical Science had arrived to that state in which it could administer poisonous substances with impunity, the art would then be at its zenith of perfection.

The *Stramonium* possesses all the soothing antalgic qualities of the opium, without its hypnotic and astringent effects; hence its superior efficacy as an application to all inflammations, and painful local affections.

There was a small treatise published a few years ago in England, by a Mr. Fisher, on the efficacy of the *Stramonium*, when smoked as tobacco, in all asthmatic and pulmonary affections, which was attended with considerable success; and many are the instances where this practice has been attended with the most beneficial and happy effects. So great was the demand for the herb in a dried state, prepared for the purpose of smoking, that it was sold by almost every druggist in London at three shillings sterling per pound, and the seed sold for six shillings per ounce. Nor has its character at all diminished in the opinion of those who have tried its effects; for I am personally acquainted with several very respectable people, who declare that there is nothing affords them so much relief, as the constant smoking of the dried herb.

I shall now relate the facts that have come under my own observation, without entering into any theoretical

speculations, or advancing any exaggerated accounts. I have given the Stramonium internally, with considerable beneficial effects, in several convulsive and melancholic diseases; but the result of my practice in that way, shall be communicated to the public at some future period; as a medicine possessing such signal and potent qualities should be given with caution and great exactness, so that its effects should be perfectly ascertained, previous to its being recommended to general use. As a topical application, no substance that I am acquainted with, or perhaps, that the whole *Materia Medica* affords, possesses such soothing, anodyne, and antalgic effects, particularly in the form of a tepid ablution. It relieves pain, abates inflammation, and promotes rest.

Painful, indolent, glandular, carcinomic tumours, are much relieved, and frequently dispersed altogether, by a frequent fomentation composed of a strong tepid decoction of the leaves and herb of the Stramonium. Gangrenous, phagedenic, and sloughing ulcers, are relieved from pain, and brought into a healthy state, if the part be so situated, as to admit of its being steeped or soaked for fifteen or twenty minutes, twice a day, in a strong decoction of the Stramonium: if the parts be so situated as not to admit of the above method, the part must be fomented with a flannel rag, squeezed out of a warm decoction of the leaves and herb. A plaster, composed of three parts of the "*Emplastrum Roborans*," two of the "*Extractum Stramonium*," and one of the "*Emplastrum Lythæ*;" will relieve almost any pain, in any part of the body. Several cases of chronic rheumatic affections, and other chronic pains in the small of the back and loins, have been relieved by the application of this plaster. Pains in the chest and sides,

are almost always relieved by the application of a large plaster of the above ingredients, applied to the part affected.

Pains in the small of the back, head, and limbs, with hot and dry skin, bitter taste in the mouth, and a soreness all over the body, as if they had been beaten, (to use the patients' own words,) are most certainly relieved by a tepid bath of the decoction of Stramonium; the bath should be taken at bed-time, and if the body be stimulated all over by the friction of a flannel rag, the patient will take repose, a gentle diaphoresis will be produced over the whole body, and the patient awake, relieved from all complaint. The symptoms just related, are frequently the messengers and forerunners of that frightful and alarming disease, called fever! If, however, people were to attend to the symptoms so manifest in the incipient state of this scourge to human nature, and would keep their bowels open with gentle cathartics, and take a tepid bath at bed-time, as before directed, and this plan continued for a few days, that formidable and dreadful disease would be nipped in the bud, and thereby prevented from arriving to maturity; by which means the lives of thousands would be saved, who otherwise fall victims for the want of timely care. This language may be considered rather bold by some of our great physicians, who have pretended to measure the specific laws of pyrexial diseases, with mathematical exactness, and given geometrical rules, with respect to the range of its proximate and remote causes; yet, all these elaborate and vague reasonings have not advanced us one single step further, than we were two thousand years ago. The reader will, I hope, pardon this short digression from our subject.

The beneficial effects of the external application of the Stramonium, are agreeably satisfactory, in ophthalmic and inflammatory complaints, when used in the form of a tepid ablution to the eyes : a small poultice composed of oat-meal, mixed with the warm decoction, applied at bedtime, and the bowels kept open with gentle cathartics. Many are the instances which I have seen, of its happy effects, produced by immersing children in a tepid bath of the decoction, in cases of severe griping pains in the bowels, and purging with green stools; often produced by colds, wet feet, dentition, &c. and sometimes attended with an evening exacerbation of fever. Children labouring under those complaints should have a tepid bath, composed of the decoction of the leaves and herb of the Stramonium, twice a day; and the body should be stimulated all over with a flannel rag, particularly about the bowels and stomach; the bowels kept open with small doses of Pulv. Rhæi. et Pulv. Ipecac. comp. this done, there are very few cases indeed, but would recover by a few days' continuance of this plan of treatment. There is one circumstance which must be most particularly attended to, and that is, not to let the bath be too hot. This is the reason why the warm bath (as it is called) has too often added to the complaint which it was intended to relieve. For, almost all nurses (and some medical men) use the bath too hot. It is a well-known fact, and a fact that must have been observed, by every one acquainted with a sick chamber, that if a patient remain long in what they call a "warm bath," the patient faints; and were he not taken out in time, he would as certainly die.

Now, if a patient in the lowest state of debility, be placed in a tepid or subtepid bath, and while in it, allow-

ed to take a glass of wine, the pulse will rise, and the patient will feel refreshed and strengthened; his countenance will become more cheerful, and a glow of warmth will be felt all over the body; and when wiped dry, and put to bed, he will fall into a gentle sleep, and awake much refreshed. These are not fanciful speculative arguments, but facts, that will be found to take place, whenever they are managed with caution and judgment.

Cutaneous affections of all descriptions, are mitigated, and frequently cured altogether, by a constant ablution with the tepid decoction twice a day, and keeping the bowels open with gentle cathartics. The manner of preparing the decoction for this purpose, is as follows. Take a handful of the leaves and herb together, and simmer them over a slow fire, for about half an hour, then pour the whole into a small tub, or wash-hand basin, and add as much cold water as will make the whole milk-warm; then with a flannel rag, squeezed out of the decoction, rub the body all over, from head to foot, so as to cause a general stimulating effect in every part of the body: this continued twice a day, for several days, (at the same time attending to the state of the bowels,) there are very few cases indeed, but will be relieved by this plan of treatment. An ointment made of the Stramonium, is equally efficacious, when applied to painful sloughing ulcers, and painful biles, &c. A poultice made with oatmeal, or any other substance of the kind, mixed into a consistence, with a strong warm decoction of the Stramonium, instead of water, and applied warm to any bile, or painful sore of any kind, or any other local painful tumour, will invariably afford relief, if repeated a few times.

I shall now relate a few cases, with every fact and particular that is necessary for our purpose. On the 11th of September, 1816, I was called to visit a child belonging to Mr. Fowler, No. 139 Hester-street, aged about two years; had been visited by another physician, and was then thought to be past recovery.

I found the child labouring under a severe oppression of the chest; tongue furred, skin hot, pulse quick and rather small, bowels open, stools brownish and offensive; an exacerbation of fever every evening about five o'clock. I ordered the child to be washed all over the body with a tepid decoction of the Stramonium; to friction the body with a flannel rag, so as to excite a general stimulation, but more particularly about the parts affected, this to be repeated every night and morning; an injection was given, and the bowels kept open with small doses of castor oil. This practice was most strictly attended to, for four or five days, when the child became perfectly free from complaint, and the father called on me "to thank me for saving his child's life," (for these were his words) and pay my account.

On the 2d of October, 1816, I was called up in the night to visit a child belonging to Mrs. Romaine, No. 302 Bowery, in strong convulsions. I ordered a decoction of the Stramonium to be got ready immediately, and the child to be washed and rubbed all over the body with a flannel rag squeezed out of the warm decoction. The child to have an injection, and to take some cathartic medicine; the bathing and friction to be repeated, should the convulsions return. On my visiting the child the next morning, it was playing about the house, apparently as well as ever, save the debility occasioned by the pre-

vious night's exertions. The child continued to recover, and has not had a return of its disorder.

On the 10th September, Mrs. Long, of Spring-street, brought a child to me, about 18 months old: it had been purged and severely griped for several days; stools dark-coloured, and fetid; tongue white; skin cold and clammy; pulse so low and quick as not to be counted; body much emaciated and reduced. I ordered her to go home, and get ready a decoction of the Stramonium immediately; and bathe the child all over the body with the tepid decoction; to stimulate the skin by friction with a flannel rag, particularly about the bowels and stomach; ordered Pulv. Rhæi. c Ipecac. comp. every three or four hours. The bathing and friction were continued twice a day, and the medicine given according to the state of the bowels, and in a few days the child was free from all complaint. It gradually recovered its strength, and has not been ill since.

September 21, Mr. White, of Rivington-street, came to me, and requested I would visit his child immediately, as they thought it was dying in fits. I found the child in strong convulsions; ordered an injection immediately, and a tepid bath of the decoction of the Stramonium as soon as it could be got ready, which was to be repeated twice a day, with friction, and the bowels to be kept open with small doses of cathartic medicine. The child got perfectly well, and I have not heard of it since.

November 2, 1816, I was called to see a child at No. 6 Prince-street, named M'Guire, aged about two years and a half. On visiting it, I found the body considerably emaciated and reduced. Great debility, and

what Dr. Butler calls, "Infantile remittant fever," was present. Tongue furred, skin shrivelled and dry, pulse small and quick, bowels costive, urine scanty and high-coloured, and that whining and crying (whenever it was touched, or moved) observable in marasmus. There was an exacerbation of fever every evening, with clammy perspiration in the morning. I ordered the child to be washed all over the body with a tepid decoction of the Stramonium; the body to be stimulated with the friction of a flannel rag, for five or ten minutes, twice a day; to have an injection, and take small doses of castor oil, to keep the body open, and to take its drink cold; such as beef-tea, nourishing soups, &c. in which a large spoonful of some mild stomachic cordial should be put; and this to be taken as often as the child would drink it, in the absence of fever.

The child passed a very comfortable night, and had several hours rest towards the morning: this treatment was persisted in for several days; when the fever left it, and never returned. The child began to eat, and gain strength; it continued to do well, and perfectly recovered its strength, flesh, and good health.

Mrs. Hart, of Rivington-street, came to me, and said, she had a son who had a very sore toe, which she was afraid would mortify. On visiting the boy, I found the toe and foot in a state of considerable inflammation, with severe pain. The top of the toe was in a sloughing phagedenic state. There was restlessness with febrile excitement; tongue white, bowels costive. I ordered some cathartic medicine to be given immediately, a decoction of the Stramonium to be prepared, and the whole foot to be soaked in it for fifteen or twenty minutes: after which, a poultice of oatmeal mixed with the

strong decoction, to be applied. This relieved the pain, abated the inflammation, and promoted rest. The bowels were kept open by cathartic medicine, and the fomentation and poultice repeated twice a day; and in about six or eight days the boy was walking about.

I was called to visit a child belonging to Mrs. Post, in Spring-street, said to be ill with worms. I was informed by the mother, that "several medical men had seen the child, and that nothing which had been ordered had done any good." This was another of what is called by Dr. Butler "*Infantile remittant fever.*" Paroxysm every evening about five or six o'clock. Tongue furred, pulse quick and rather small, bowels costive, skin hot, and urine high-coloured. I ordered a little castor oil to be taken every two hours, till several evacuations were produced. The child to be bathed in a tepid decoction of the Stramonium every twelve hours, and the bowels to be kept moderately open. This practice was continued for a few days, when the child began to take its food as usual, and gradually to recover: the fever did not return, and the child got perfectly well.

I wish particularly to observe, that whenever the bowels are in a constipated state, and cathartic medicines seem to produce no effect, evacuations will invariably be produced, after the stimulating action, produced by the friction and warmth of the bath, has been continued for any length of time. On reflecting on the soothing and narcotic, as well as analeptic effects, produced by the external application of the Stramonium; it will be found to be analogous with all the phenomena of the absorbent system, with which we are acquainted.

The cinchonæ, opium, emetic-torpor, mercury! &c. &c. are absorbed when applied to the surface, and produce

similar effects, (though in a milder degree,) as when taken internally.

Since the doctrine of the lymphatic system has been more generally understood, we see that their unobstructed state is so compatible with health, that whenever this circumstance is not particularly attended to, diseases of all descriptions commence their ravages. This is the grand reason, why tepid ablution, with stimulating friction, should never be omitted as an aid, in the cure of all diseases attended with obstruction of the Vasa Absorbentia.

The few hints and observations, which I now give on the subject, will, I trust, call the attention of the more able and liberal-minded part of the profession; possessing more ability and influence than myself, to make further trials of the medicinal effects of this valuable plant. For as Cicero said,

Nec me pudet ut istos, fateri nescire quod nec nesciam.



Since writing the preceding pages, I have received the following Letter from a friend of mine, who has witnessed the happy effects produced by smoking the herb of the Stramonium, in Asthmatic complaints, both in this city, and in many parts of England.

MY DEAR DOCTOR,

I shall have great pleasure in finding that your endeavours to introduce the use of the Stramonium have the success they merit.

Although not a medical man, I can bear witness to its beneficial effects on several friends of mine in London, who used it as a remedy for asthmatic complaints; and in one case, in particular, where it was recommended by Dr. R. Bree, one of the physicians to His Royal Highness the Duke of Sussex, who, it is well known, is a martyr to asthma.

In that case, as well as many others, that have fallen within my knowledge, it was productive of great relief to the patient, and it is very generally used by sufferers in that very painful disorder, in England.

I shall be most happy if any thing I can say in the limited circle of my acquaintance here, can in any way forward your praiseworthy exertions, and with much regard remain,

My dear Doctor,

Your's sincerely,

W. ROBERTS.

Dr. W. M. IRELAND, M. R. C. S. London.

Now in New-York.

NEW-YORK, Jan. 12, 1817.

Med. Hist.

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